Job Aid 11

Remote Installation Procedures & Scripts

This checklist outlines the steps you should take to remotely install an Exchange 2000 server, and to remotely upgrade an existing Exchange 5.5 SP3 server to Exchange 2000. This checklist assumes all preparatory steps (preparing the Windows 2000 domain and forest, and installing Windows 2000 onto the server in question) have been completed.

Remote Installation Procedures & Scripts: Further Details

As stated above, this document will guide you through the steps necessary to remotely install or upgrade an Exchange 2000 server in your organization. It will also step you through the process of creating and editing your own scripts.

Setup Parameters

Along with the Windows 2000 preparation and Exchange recovery parameters, Exchange 2000 has the following Setup parameters:

- `/?` – Display command line parameters
- `/CreateUnattend filename.ini` – Create unattended installation file named filename.ini
- `/UnattendFile filename.ini` – Run in unattended mode with unattended file named filename.ini
- `/Password password` – Autologon password for the current user
- `/EncryptedMode` – Run with /CreateUnattend in order to create an unattended file using encryption
- `/ShowUI` – Used in conjunction with /UnattendFile to show the UI even though we are running off an unattend file
- `/NoEventLog` – Used to turn off event logging
- `/NoErrorLog` – Used to turn off error logging
- `/All` – Used to enable all components for install, upgrade, or reinstall

Remote Installation Scripts

Unlike earlier versions of Exchange server, you can create Exchange 2000 installation scripts simply by adding the “/CreateUnattend” parameter to your Setup command.

Creating a Server Installation Script

You will perform the following steps to create your unattended script.

What you will need

- A Windows 2000 server that you have not installed Exchange 2000 onto (for best results, use a server that is the same hardware that you will be using the scripted installation on).
- A Windows account with Exchange Full Administrator permissions that also has local

Administrator rights on the server you are installing Exchange 2000 onto

What you should know

- The configuration that you want the final server to have

1. Insert the Exchange 2000 CD into the server. Close the autorun window.
2. Open a Command Prompt
3. Type:
   <drive>*:\SETUP\I386\SETUP /CreateUnattend *<unattendfile.ini>
   where *<drive>* is your CD ROM drive letter and the resultant unattended Setup file is *<unattendfile.ini>*
4. On the **Welcome** screen, click **Next**.
5. On the **End-User License Agreement** screen, click **I agree** and then click **Next**.
6. On the **Product Identification** screen, enter your product identification number and then click **Next**.
7. On the **Component Selection** screen, select the type of installation (Typical, Custom, Minimum) and the components (just as you would for a normal install, as in deployment chapter 4). If you would like to change the Install Path, click **Change Folder** to enter a different folder. Click **Next**.
8. On the **Licensing Agreement** screen, click **I agree that: I have read and agree to be bound by the license agreements for this product** and then click **Next**.
9. On the **Component Summary** screen, click **Next**.
10. On the **Completing the Microsoft Exchange 2000 Wizard** screen, click **Finish**.

The unattendfile.ini file will be in the location specified on the command line in step 3.

When you complete this, you will have only the unattendfile.ini. The server you performed this on will not have Exchange 2000 installed onto it. This allows you to quickly build multiple server configurations without having to rebuild the server after each installation.

To run Setup using the unattend.ini file created in this process, enter the following at a command prompt:

<drive>*:\Setup\I386\Setup.exe /UnattendFile *unattendfile.ini

Generic Installation Script

The following script was build through this process. Much of the information in this script is in unreadable format, so bear with us. This was a clean installation script, You will notice that as you go through this script, you will find obvious information, such as directories and organization information. Note that wrapped lines of text are slightly indented from the rest of the script.

You will also see that the account name that is used to install the server is listed as “NTDOMAIN\Administrator”. This information is in clear text, but the password for this account is encrypted, so a user in a remote office can use this script to install an Exchange 2000 server without requiring the Exchange Full Administrator account password. This will allow any user who has local administrator rights to a server to install Exchange 2000 onto that server using this script without requiring any specific rights to the Exchange 2000 organization.

Note that since this sample script was built in a lab (a vanilla implementation, no options included), and since that lab does not resemble your environment (lab or production), you will not be able to use this on your own systems. However, since the process for building a script is very simple, building your own scripts will be no problem.

Sample Script

```
[Version]
Signature="$Windows NT$"
Provider="Microsoft Exchange 2000"

[CompleteComponentList]
exsetdata.dll
srchcomp.dll


[PreInstallOrder]
gfn_mid microsoft search
gfn_mid microsoft exchange 2000
gfn_mid microsoft exchange server component
gfn_mid microsoft exchange system management tools


[InstallOrder]
gfn_mid microsoft search
gfn_mid microsoft exchange 2000
gfn_mid microsoft exchange server component
gfn_mid microsoft exchange system management tools


[PostInstallOrder]
gfn_mid microsoft search
gfn_mid microsoft exchange 2000
gfn_mid microsoft exchange server component
gfn_mid microsoft exchange system management tools


[Component Error List]

[gfn_mid microsoft search]
gfn_pid stockprop hidden=1
gfn_pid stockprop required=0
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=1
InstallDirectory=C:\Program Files\Common Files\System\MSSearch
InstallActionInteger=2
[gfn_mid microsoft exchange 2000]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
```

```
gfn_pid microsoft exchange organization name=
{CDC92A5E-3E10-448C-A609-9E0D41943F00}=
{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=NTDOMAIN\Administrator
gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=1
gfn_pid microsoft exchange show licensing=0
{907EA70F-F59B-424F-A422-C358C1F0E55F}={4896cd5a-5f81-4205-9ff8-
   5721ec9c3945}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={c38a1037-c4f3-46e8-9a8c-
   f3d66d66615e}
gfn_pid microsoft exchange use specific mpc=1
gfn_pid microsoft exchange mpc value=52981
InstallDirectory=C:\Program Files\Exchsrvr
InstallActionInteger=61960
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   forest preparation]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=1
gfn_pid stockprop required=0
gfn_pid stockprop hidden=1
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
{CDC92A5E-3E10-448C-A609-9E0D41943F00}=
{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=1
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
existing Exchange 5.5 installation service=Administrator,BUPAGEX,
InstallActionInteger=61952
```

```
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   domain preparation]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=1
gfn_pid stockprop required=0
gfn_pid stockprop hidden=1
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
{CDC92A5E-3E10-448C-A609-9E0D41943F00}=
{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
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gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
{CDC92A5E-3E10-448C-A609-9E0D41943F00}=
{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=BUPAGEXSite
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=BUPAGEXSite
gfn_pid microsoft exchange ag containing routing
   group=BUPAGEXSite
gfn_pid microsoft exchange routing group=BUPAGEXSite
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=1
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=1
```

```
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
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{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61953
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component\{806E2466-C154-11D2-92EF-00C04F79F1A8}]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
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   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component\gfn_mid microsoft exchange msmail connector]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=
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gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
```

```
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
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   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component\gfn_mid microsoft exchange key management
   service]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
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   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component\gfn_mid microsoft exchange connector for
   lotus cc:mail]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
```

```
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gfn_pid microsoft exchange admin group=
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gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
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   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component\gfn_mid microsoft exchange connector for
   lotus notes]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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gfn_pid microsoft exchange admin group=
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gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
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   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   server component\gfn_mid microsoft exchange connector for
   novell groupwise]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
```

```
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gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
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gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   system management tools]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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gfn_pid microsoft exchange admin group=
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gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
```

```
InstallActionInteger=61953
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   system management tools\gfn_mid microsoft exchange 5.5
   administrator]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
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gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange chat
   service]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
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gfn_pid microsoft exchange admin group=
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gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
```

```
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
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   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\{806E2465-C154-11D2-92EF-
   00C04F79F1A8}]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
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gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
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gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=0
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952
[gfn_mid microsoft exchange 2000\gfn_mid microsoft exchange
   instant messaging service]
gfn_pid stockprop suitebaseline=0
gfn_pid stockprop scenariobaseline=0
gfn_pid stockprop shared=0
gfn_pid stockprop required=0
gfn_pid stockprop hidden=0
gfn_pid microsoft exchange install type=
gfn_pid microsoft exchange organization name=
{CDC92A5E-3E10-448C-A609-9E0D41943F00}=
{599AD9B5-707B-4CC1-A4E3-24614A619F2B}=BUPAGEX\Administrator
gfn_pid microsoft exchange 5.5 server name (in site)=
gfn_pid microsoft exchange admin group=
{0EF92510-DB5E-45F3-8F02-815CE7B79A06}=
gfn_pid microsoft exchange ag containing routing group=
gfn_pid microsoft exchange routing group=
gfn_pid microsoft exchange display kms password=
gfn_pid microsoft exchange kms password path=
```

```
gfn_pid microsoft exchange kms backup password path=
gfn_pid microsoft exchange kms password=
gfn_pid microsoft exchange accept licensing=1
gfn_pid microsoft exchange show custom actions=0
gfn_pid microsoft exchange show licensing=1
{907EA70F-F59B-424F-A422-C358C1F0E55F}={00000000-0000-0000-0000-
   000000000000}
{E03A1AEB-BAB5-424C-ABAD-EBA67BE1E358}={00000000-0000-0000-0000-
   000000000000}
gfn_pid microsoft exchange use specific mpc=0
gfn_pid microsoft exchange mpc value=
InstallActionInteger=61952

[Additional Global Property Names]
{DF8FF64A-1967-4871-9E32-CA2F819BAB81},HWNDForLoadingDialog,0,0

[Global Properties]
gfn_pid core password=
gfn_pid core autologon=0
gfn_pid core autologon previously enabled=0
gfn_pid core user name=Bryan Urakawa
gfn_pid core organization=Org
gfn_pid core pid 20=111-1111111
gfn_pid core pid 30=H6TWQ-TQQM8-HXJYG-D69F7-R84VM
gfn_pid core license file=eula.txt
gfn_pid core suite directory=C:\Program Files\Microsoft
   Integration
gfn_pid core post reboot=0
gfn_pid core suite name=Microsoft Exchange 2000
gfn_pid core disk requirement=31457280
gfn_pid core progress show subs=1
gfn_pid core progress show tasks=0
gfn_pid core ask for pre install=0
gfn_pid core ask for post install=0
gfn_pid core suite mode=0
gfn_pid core suite baseline=0
gfn_pid core install scenario baseline=0
gfn_pid core force disk space ok=0
gfn_pid core ignore final disk space check=0
gfn_pid core registry=Software\Microsoft\Microsoft Integration\
   65D9643D-06E8-47d6-865E-80F4CC9BB879\SetUpData
gfn_pid core no error log=0
gfn_pid core no event log=0
gfn_pid core system drive=C:
gfn_pid core program files=C:\Program Files\
gfn_pid encrypted mode=0
{E0C022B6-2029-11D3-8DFC-00C04F797FB8}=10
{1B3F6DC3-205F-11D3-A824-00C04FB1799F}=
{706A51B7-2593-11D3-A825-00C04FB1799F}=
{CDD00162-2E69-11D3-A829-00C04FB1799F}=65D9643D-06E8-47d6-865E-
   80F4CC9BB879
{CDD00163-2E69-11D3-A829-00C04FB1799F}=
{D4896336-2E69-11D3-A829-00C04FB1799F}=
{AA62DF98-3F2C-11D3-887B-00C04F8ECDD6}=0
{383F0141-C682-4665-A69B-756E719C968D}=
```

```
{1109E7E9-D862-400B-8414-F099175475D1}=0
{F11BC22E-07EC-44E3-987D-081E0406C98E}=0
{F24FCE05-8B5C-472F-9F53-9C9BB3DE50AF}=7
{CCA4E4A8-A78B-4088-AF1E-7BE468F9B996}=F:\SYS\EXCH_2000\SETUP\
   I386
gfn_pid core dont install suite files=0
{DF8FF64A-1967-4871-9E32-CA2F819BAB81}=0
[Scenario Factory]
ActiveScenario={8BED5C7A-CDC9-11D2-92F4-00C04F79F1A8}
```

Remote Installation Procedures

Once you have your unattended script created, there are several ways to use it to install a server. The following are only two of the possible ways and how you would use the script in these cases. For any of these processes, we recommend that you have the Exchange 2000 CD local to the server being installed. If you do not, the installation time could be prohibitive, and the installation would be vulnerable to network issues.

Remote Logon with Terminal Server

Since Exchange 2000 has to be installed on a Windows 2000 server, and since Windows 2000 includes Terminal Server services that are less intrusive than the Terminal Server implementation of Windows NT 4.0, we highly recommend that Terminal Services be installed onto every server that you plan to install Exchange 2000 on in your environment. This will allow you to have someone in a remote location install Windows 2000 on the system, then allow you to install Exchange 2000 without having to be local to the server. The one recommendation we will make is that you have the Exchange 2000 CD at the server's location.

If you plan to install your remote Exchange servers through a Terminal Server session, you have several options on how you can install the server. You can use the full GUI installation, described in a previous chapter, or you can run the script you have prepared above. The advantage of using the script is that you will have a known configuration when you complete the installation. The disadvantage is that if you need a different configuration in that remote environment, you will have to either create a custom script for the server, or you will have to re-run Setup and add or remove options after your server installation is complete.

The obvious advantage of this installation process is that it can be fully controlled from the remote console. However, if you get disconnected from the server during the installation, even though your session won't be halted, you will have to reconnect through another TS session to see what its progress is. You can't access this directly from the console.

Using the "At" command

As with most Windows 2000 commands, you can run the installation from a scheduled command. You would build a script through the process we described above, then change the account that the Windows 2000 Scheduler uses on the server to be an account that is a local administrator on the server you will be installing Exchange onto. Since you will be using the script you developed above, this account won't need any rights to the Exchange 2000 organization.

Once you've configured the Scheduler service, you would either use WinAT, or you would run the following command (with all quotes included and on a single line) to add the process to the list of scheduled commands on that server:

AT *<servername>* *<time>* "*<drive>*:\Setup\I386\SetUp.exe /UnattendFile *unattendfile.ini*"

The major issue with this process is that unless you include the "/interactive" switch on the AT command line, and unless you have someone at the console of the server, your installation could freeze without giving any indications that this happened.[1] You need to be sure you fully test the installation in a lab on a server that is configured exactly the way your remote server will be. If your installation freezes on the remote system, you may need to restart the server, then remove information from the Active Directory in order to restart the installation.

Installation using a Remote Administrator

The final option you have for remote installation would be to have someone who is local to the future Exchange server perform the installation. As stated earlier, the account they use to install Exchange 2000 will have to be a local administrator on the server, but it will not require any rights to the Exchange organization.

To perform this installation, you would build the script for the remote server, then ship both the script and the Exchange 2000 CD to the remote location. You would then have someone in that remote office prepare the Windows 2000 server and run the scripted installation. Assuming their unattended script file is called "unattendfile.ini", they would use the following command from a command prompt to start the Exchange installation:

<drive>:\Setup\I386\Setup.exe /UnattendFile unattendfile.ini

The obvious advantage with this process is that you don't need any direct involvement in the installation once you have built the script. The issue, however, is that if the installation fails, the local installer can't restart the installation without your intervention. This is all the more reason to ensure you fully test the installation in a lab before you continue on a production system.

Remote Upgrade Procedures

Unlike the remote installation process, which is supported as a scripted process, there isn't a supported scripted upgrade for Exchange 2000. Additionally, there isn't a supported silent upgrade feature, due to the complexities of the upgrade. However, you can still perform remote upgrades using a Terminal Server session on the remote machine.

To perform this upgrade, just follow the steps outlined for a server upgrade, outlined in an earlier chapter of this guide, but perform the steps from a Terminal Server session. In case you lose your session accidentally, the upgrade will still be running, and you can rejoin it by just reconnecting with another Terminal Server session.[2]

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[1] Any Exchange 2000 installation will build the "Exchange Server SetUp Progress.log" in the root of the drive Exchange is being installed onto. You can view this file during the installation to determine progress, but it won't give definite indicators if the installation is hung.

[2] We don't recommend that you purposely disconnect your Terminal Server session during the upgrade process. You will want to stay connected in case the upgrade has problems that you can solve from your session.

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This is a preview edition of the Microsoft Exchange 2000 Server Upgrade Series. The final documentation will be available in November 2000.